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Academician Nikolai Dmitrievich Zelinskii, M. B.  
Turova-Pulak. *Zhur. Priklad. Khim.* (J. Applied Chem.)  
24, 117-24 (1931).—Biography with portrait and summary of  
70 years of scientific work.  
G. M. Kosolapoff

-2

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Academician Nikolai Dmirkovich Zolotukhin on his 60th  
birthday. M. B. Turyn-Polak. *J. Applied Chem. U.S.*  
S.R. 24, 137-9 (1981) (Engl. translation).—See *C.A.* 64,  
301s. R. M. S.

1952

"APPROVED FOR RELEASE: 04/03/2001

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TRIPAWA DIVAP M.P.

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APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001757610005-9"

TUROVA-POLYAK, M.B.; SOSNINA, I.Ye.; TRESCHOVA, Ye.G.

Isomerization of polymethylene hydrocarbons under the influence of aluminum.  
Part 18. Isomerization of dicyclopentyl. Znur.ob.khim. 23 no.7:1111-1116  
(MLRA 6:7)  
Jl '53.

1. Kafedra organicheskogo kataliza Moskovskogo Gosudarstvennogo universiteta.  
(Isomerism) (Cyclopentyl)

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757610005-9

TUREVA - TOLAK, M. B.

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757610005-9"

*TUROVA-POLYAK, M. G.*

USSR/Chemistry - Catalytic conversion

Card 1/1 : Pub. 151 - 14/42

Authors : Turova-Polyak, M. G.; Danilova, N. V.; and Treshchova, E. G.

Title : Catalytic alkylation of benzene with butyl alcohol

Periodical : Zhur. ob. khim. 24/9, 1558-1562, Sep 1954

Abstract : The reaction of benzene alkylation with butyl alcohol was realized for the first time in a flowing system at atmospheric pressure. The chemical properties of the reaction products obtained are described. A temperature of 300°, molar ratio of benzene : n-butyl alcohol of 4 : 1 and a volumetric rate of feeding the reaction mixture of 0.66 - 2.4 are considered the optimum conditions favorable for the derivation of butyl benzenes. The percentage yield of butyl benzene was calculated. Fifteen references: 9-USA; 1-German and 5-USSR (1929-1953). Tables; graphs.

Institution : State University, Moscow

Submitted : April 19, 1954

Turovskii - Polyak, 1965

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Catalytic transformations of cyclohexane hydrocarbons on  
aluminosilicate catalyst. A. A. Balandin, M. B. Turovskii, 3  
Polyak, and V. V. Kurn. *Doklady Akad. Nauk S.S.R.*  
162, 710-19 (1965). — Passage of substituted cyclohexanes  
over aluminosilicate catalyst at 540° give the following  
yields of products from indicated starting materials (%  
yield of liquid catalyze, gaseous products in ml./g., %  
yield of coke, gaseous hydrocarbons, liquid hydrocar-  
bonization products, total aromatics, C<sub>6</sub>H<sub>6</sub>, MePh, etc.,  
higher aromatics): cyclohexane 82, 171, 2.9, 13, 4, 4.1,  
12.3, 1.4, 2.7, 3.5, 5.7; methylcyclohexane 69.6, 95.6, 2.3,  
24.8, 9.2, 7.6, 15.6, —, 8.1, 2.4, 5.0; ethylcyclohexane  
68.9, 25.4, 2.4, 21.0, 9.9, 7.2, 16.1, —, 13.2, 2.9; 1,4-  
dimethylcyclohexane 64.8, 311.2, 28.1, 11.1, 4.2, 10.0,  
—, 2, 14, 3.9; 1,1-dimethylcyclohexane 74.1, 309, 1.3,  
19.3, 9.5, —, 14, —, 8.8 (including xylenes), 5.2; 1,3,5-  
trimethylcyclohexane 59.1, 309, 4.3, 33.9, 11.5, 2.5, 21.2,  
—, —, 15.8, 5.4; isopropylcyclohexane 63.4, 276, 4.1, 31.6,  
16.3, 8.7, 18.2, —, —, 14.3, 3.9. The longer the time of  
contact, the greater is the proportion of gaseous products,  
particularly C<sub>6</sub>H<sub>6</sub>; the above set of values obtained at space  
velocity 0.29 l./l./hr. Elevation of temp. from 500° to  
560° raises the total conversion, the yield of gases, and  
amt. of MePh formed. The apparent activation energy  
was found from gas evolution to be 27,700 cal./mole for  
methylcyclohexane, and 39,900 cal./mole for cyclohexane.

G. M. Kosolapoff

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or 10) was realized in presence of Al by warming the melt  
to start the reaction and finally heating on a steam bath  
30-40 min. Mainly potassium iodide was formed

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3.5-4.5% HOD25, 44%OD, 40-45% ODS4, 10-12% ODS5  
0.2-1.4% TGA1, 75-85% DPA, 1-2% TGA2, 1-2% TGA3

7/16/2001

REMOVED FROM THIS SHEET: 7/16/2001

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757610005-9"

*Turova-Polyak, M. B.*  
USSR/Physical Chemistry - Kinetics, Combustion, Explosions, Topo-  
chemistry, Catalysis.

B-9

Abs Jour: Referat. Zhurnal Khimiya, No 3, 1958, 7257.

Author : A.A. Balandin, M.B. Turova-Polyak, A.Ye. Agronomov,  
I.M. Khorlina, L.S. Kon'kova.

Inst : Academy of Sciences of USSR.

Title : Catalytic Dehydration of Alcohols on Anhydrous Magnesium Sulfate.

Orig Pub: Dokl. AN SSSR, 1957, 114, No 4, 773-776.

Abstract: The dehydration of cyclohexanol, cyclopentanol, pentanol-2 and propanol-2 in the vapor phase at 400 to 410° and at the volume rate of 0.4 in presence of anhydrous  $MgSO_4$  proceeds practically to the end. The apparent activation energies in the range from 360 to 400° are from 14370 to 15910 cal per mole, which, in the authors' opinion, is stipulated either by the same orientation of alcohol molecules with reference to the catalyst surface, or by that all these reactions are

Card : 1/2

-42-

ACC NR: AP6011659

L 38929-66 E: (n)/EMP(j)/EMP(t)/ETI LIP(r) 6/10 JD/EM

SOURCE CODE: UR/0020/66/167/003/0604/0606

AUTHOR: Turova, N. Ya.; Popovkin, B. A.; Novoselova, A. V. (corresponding member AN SSSR)ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)TITLE: X-ray analysis of methylates of alkali-earth metalsSOURCE: AN SSSR. Doklady, v. 167, no. 3, 1966, 604-606TOPIC TAGS: X ray analysis, beryllium, magnesium, calcium, strontium, barium

ABSTRACT: The authors made an x-ray analysis of methylates of Be, Mg, Ca, Sr, and Ba in the form of powder products obtained upon desolvation of  $\text{Me}(\text{OCH}_3)_2 \cdot 4 \text{CH}_3\text{OH}$  ( $\text{Me} = \text{Mg}$ , Ba) or in the form of unsolvated alcohohlates. The x-ray patterns of the powder were obtained on Fe-K-radiation in an RKD-57 camera. The parameters were refined on the basis of the powder patterns recorded on CuK $\alpha$ -radiation with the use of a monochromatic illuminator. The specimens of the alcholates for photographing in the RKD camera were prepared by filling capillary tubes made of pyrex glass in a dry chamber in an argon atmosphere. Suspensions of powders in absolute liquid petrolatum were used for recording in the monochromator. The

UDC: 546.4/.5+548.736

Card 1/3

L 38929-66

ACC NR: AP6011659

density was determined pycnometrically and by the suspension method in mixtures of absolute benzene with  $\text{CCl}_4$  or  $\text{CHBr}_3$  with preliminary pressing of the powders in a vacuum. Both methods yielded results which agreed well. The quality of the x-ray patterns of the alkali-earth methylates somewhat deteriorates upon changing from strontium to calcium, only diffuse rings were present on the powder x-ray patterns of  $\text{Mg}(\text{OCH}_3)_2$ , and  $\text{Be}(\text{OCH}_3)_2$  represented a completely x-ray amorphous substance. The x-ray patterns of  $\text{Ca}(\text{OCH}_3)_2$ ,  $\text{Sr}(\text{OCH}_3)_2$ ,  $\text{Ba}(\text{OCH}_3)_2$  were fully identified in the hexagonal cells. On the basis of the coincidence of the indexes of the lines of the powder x-ray patterns of  $\text{Ca}(\text{OH})_2$  and of the methylates, their sequence, and the relative intensity, the authors conclude that all alkali-earth methylates are isostructural to calcium hydroxide and have the same space group  $\text{P}\bar{3}\text{ml}$  ( $\text{C}\bar{3}\text{m}$ ). These methylates apparently have a laminar structure with the following alternation (in the direction of the c-axis) of atoms:  $[(\text{CH}_3)\text{OmeO}(\text{CH}_3)]$   $[(\text{CH}_3)\text{OMe} \dots]$  each of these atoms forms a layer perpendicular to the c-axis. This structure of the methylates is confirmed by the difference of the parameters of c in hexagonal cells of  $\text{Ca}(\text{OCH}_3)_2$  and  $\text{Ca}(\text{OH})_2$  amounting to 3.44 Å, which is very close to the difference between the heights of the cells of  $\text{Li}_2\text{O}$  and  $\text{LiOH}$  (3.55 Å). The constancy of the heights of the unit cells which was observed upon transition from  $\text{Ca}(\text{OCH}_3)_2$  to  $\text{Ba}(\text{OCH}_3)_2$  is attributed to the rather sharp increase of the degree of ionization of the metal-oxygen bond from the former to the latter compensating the increase of the radius of the metal. The same constancy of heights is observed in the methylates of lithium and sodium and for  $\text{Na}(\text{OCH}_3)_{0.66}(\text{OH})_{0.33}$  and  $\text{KOCH}_3$ . Orig. art. has:

Card 2/3

L 38929-66

ACC NR: AP6011659

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SUB CODE: 07,11 SUBM DATE: 09Sep65/ ORIG REF: 003/ OTH REF: 010

Card

3/3

5 (2)

AUTHORS: Balandin, A. A., Turova-Polynk, M. E., Sov/62-59-8-33/42  
Levi, G. I., Kheyfits, L. A.

TITLE: On the Formation of Elementary Phosphorus Under the Effect of  
Hydrogen and Vapors of Organic Substances on a Phosphoric Acid  
Catalyst on Activated Coal

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,  
1959, Nr 8, p 1499 (USSR)

ABSTRACT: In this short communication the authors report on the conditions  
and causes of elementary phosphorus forming during work with the  
above mentioned phosphoric acid catalyst. When hydrogen and  
vapors of organic substances pass over the catalyst the formation  
begins at 400° and, in the case of nitrogen, at 600°. Oxygen  
traces in the vapors prevent phosphorus formation. It is supposed  
that the phosphorus reduction is effected by the especially active  
surface atoms of the activated coal and the hydrogen atoms. There  
is 1 Soviet reference.

Card 1/2

On the Formation of Elementary Phosphorus Under the  
Effect of Hydrogen and Vapors of Organic Substances on a Phosphoric Acid  
Catalyst on Activated Coal

SQV/62-59-8-33/42

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov). Institut  
organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR  
(Institute of Organic Chemistry imeni N. D. Zelinskiy, Academy  
of Sciences, USSR)

SUBMITTED: February 19, 1959

Card 2/2

BALENKOVA, Ye.S.; SOSNINA, I.Ye.; TUROVA-POLYAK, M.B.; KHROMOV, S.I.

Studying the effect of aluminum chloride on cyclodecane;  
brief report. Vest.Mosk.un.Ser.mat., mekh., astron., fiz., khim.  
14 no.3:203-204 '59. (MIRA 13:5)

1. Kafedra organicheskogo kataliza Moskovskogo gosudar-  
stvennogo universiteta.  
(Aluminum chloride) (Cyclodecane)

## AUTHORS:

Turova-Polyak, M. B., Sosnina, I. Ye., Sov/79-29-1-22/74  
Voznesenskaya, I. I., Yudkina, T. P.

## TITLE:

Isomerization of the Polymethylene Hydrocarbons Under the  
Influence of Aluminum Chloride (Izomerizatsiya polimetilenovykh  
uglevodorodov pod vliyaniem khloristogo alyuminiya)  
XXII. Isomerization of the Dicyclopentyl Methane (XXII. Izo-  
merizatsiya ditsiklopentilmetana)

## PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 1, pp 97-101 (USSR)

## ABSTRACT:

In this paper the behavior of dicyclopentyl methane (a hydro-  
carbon which may belong to the constituents of the petroleum  
fraction of mineral oil, as far as its constants are concerned)  
was investigated on its reaction with  $AlCl_3$  and the influence  
was clarified that is exerted by the methylene group which  
separates the two five-membered rings, upon the direction of  
isomerization. On the basis of the experimental results of the  
present paper it may be regarded as being proved that dicyclo-  
pentyl methane, like dicyclopentyl, is subjected to skeleton  
isomerization under the influence of aluminum chloride and is  
transformed into the trans- $\beta$ -methyl decahydro naphthalene.

Card 1/2

isomerization of the Polymethylene Hydrocarbons Under SOV/79-29-1-22/74  
the Influence of Aluminum Chloride.  
XXII. Isomerization of the Dicyclopentyl Methane

At 23-27° isomerization takes place in a 96-98 % yield, at 0° in a smaller yield and at -5° there is no isomerization any longer. The presence of  $\beta$  -methyl decahydronaphthalene was found by catalytic dehydrogenation and confirmed spectroscopically. On the dehydrogenation the  $\beta$  -methyl naphthalene was separated and identified as picrate. According to the results obtained it is proved that the methylene group which is situated between the two rings in dicyclopentyl methane does not appreciably influence the direction of isomerization. An attempt was made to establish the isomerization mechanism of dicyclopentyl methane into the trans- $\beta$ -methyl decahydronaphthalene (see both schemes). There are 1 table and 14 references, 9 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: November 21, 1957

Card 2/2

5(3)  
AUTHORS:Turova - Polyak, M. B., Dobrosel'skaya, N. P.  
SOV/79-29-4-6/77

TITLE:

Catalytic Reactions in the Presence of Metallic Aluminum  
(Kataliticheskiye reaktsii v prisutstvii metallicheskogo  
alyuminiya). IV. Alkylation of Bromobenzene With Ethyl-n.-  
propyl- and n.-Butyl Bromide. Alkylation of Iodobenzene With  
n.-Butyl Bromide (IV. Alkilirovaniye brombenzola bromistym  
etilom, n.-bromistym propilom i n.-bromistym butilom).  
Alkilirovaniye yodbenzola n.-bromistym butilom.

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 4, pp 1072-1077 (USSR)

ABSTRACT:

The alkylation of chlorobenzene with the above-mentioned alkyl  
bromides in the presence of metallic aluminum was recently car-  
ried out by the authors (Ref 1). It was proved in this paper  
that also bromobenzene can be alkylated in the same way. In  
order to investigate more thoroughly the kinetics of the alkyla-  
tion in the liquid phase (in the presence of aluminum halides),  
the authors determined the influence exercised by the nature of  
the alkylating reagents, their mutual ratio, the reaction tem-  
perature, the heating time of the reaction mixture, and the  
activation time of aluminum upon the yield of the alkylation

Card 1/2

SOV/79-29-4-6/77

Catalytic Reactions in the Presence of Metallic Aluminum. IV. Alkylation of Bromobenzene With Ethyl-n.-propyl- and n.-Butyl Bromide. Alkylation of Iodo-benzene With n.-Butyl Bromide

products. The same dependence of the yield of alkyl bromobenzenes on the nature of the alkyl bromide used and on the composition of the reaction mixture as in the alkylation of chlorobenzene (Ref 1) was established. The yields of alkyl bromobenzenes increase with the increasing molecular weights of alkyl bromides. The maximum yield of alkyl bromobenzene (a mixture of para- and ortho-isomers) is 52%, of n-isopropyl bromobenzene 75%, and of n-isobutyl bromobenzene 80%. Alkylbromobenzenes of normal structure are not obtained. The alkylation of iodobenzene with n.-butyl bromide in the presence of metallic aluminum is not possible. There are 5 tables and 21 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: March 6, 1958

Card 2/2

5(3)  
AUTHORS:Turova-Polyak, M. B., Sosnina, I. Ye., Golutvina, I. G.,  
Yudkina, T. P.

SOV/79-29-4-7/77

TITLE:

Isomerization of Polymethylene Hydrocarbons Under the Influence  
of Aluminum Chloride (Izomerizatsiya polimetilenovykh  
uglevodorodov pod vliyaniyem khloristogo alyuminiya). XXIII. Iso-  
merization of 2-Methyl-bicyclo-(1,2,2)-heptane (XXIII. Iso-  
merizatsiya 2-metil-bitsiklo-(1,2,2)-geptana)

PERIODICAL:

Zhurnal obshchey khimii, 1959, Vol 29, Nr 4, pp 1078-1083 (USSR)

ABSTRACT:

Apart from the paper by P. R. Schlever (Ref 1), the contact  
transformations of bicyclic bridge hydrocarbons in the presence  
of  $AlCl_3$  have so far not been dealt with. As the basis of many  
natural products the skeleton of bicyclo-(1,2,2)-heptane is of  
great interest. 2-methyl-bicyclo-(1,2,2)-heptane is obtained by  
condensation of cyclopentadiene with acrolein and by hydrogена-  
tion of 2-methyl-bicyclo-(1,2,2)-heptene-5 in the presence of  
the skeleton-nickel catalyst. Theoretically two endo- and exo-  
isomers are possible for this heptane which, however, could hi-  
therto not be separated (Scheme 1). Such configurations of the  
spatial arrangement of hydrocarbons were observed by Schlever

Card 1/2

SOV/79-29-4-7/77

Isomerization of Polymethylene Hydrocarbons Under the Influence of Aluminum Chloride. XXIII. Isomerization of 2-Methyl-bicyclo-(1,2,2)-heptane

(Ref 1). The authors found that 2-methyl-bicyclo-(1,2,2)-heptane practically completely isomerizes to bicyclo-(1,2,3)-octane by reaction with  $\text{AlCl}_3$  at  $75^\circ$ , i.e. to a system consisting of five- and six-membered rings on the basis of a seven-membered ring. At  $100^\circ$  this reaction is accompanied by the formation of condensation products. At  $21-28^\circ$  a transition from one steric configuration of 2-methyl-bicyclo-(1,2,2)-heptane into the other takes place which was proved by spectrum analysis and the physical constants. On the strength of the results obtained it may be concluded that the part of the molecule of the above heptane which corresponds to methyl cyclopentane reacts in the presence of  $\text{AlCl}_3$  in the same way as in isolated state, i.e. it expands to a six-membered ring. On the hydrogenolysis of bicyclo-(1,2,3)-octane the m-xylene is formed. There are 1 figure, 3 tables, and 15 references, 6 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: February 11, 1958  
Card 2/2

1. 31530-65

EWC(1)/EWT(2)/EPF(3)/EPR/EWP(5)/EWP(6)/EWP(7)

-11/Pr-11/Ps-14

## ACQUISITION OF A 20%

AUTHOR. Turova-Pol'skaya, N. N.  
Chong Iem; Denisova, Ye. P.

TITLE: The use of rare earth element oxides in catalytic synthesis

SOURCE: AN SSSR. Doklady\*, v. 157, no. 3, 1964. 643-645

1.2. metal-catalyzed synthesis, ketone synthesis

## ANALYSIS OF THE DATA

APPROVED FOR RELEASE: 04/03/2001

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"APPROVED FOR RELEASE: 04/03/2001

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Card 1/3

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ACCESSION NR: AP4042796

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"APPROVED FOR RELEASE: 04/03/2001

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Card 2/3

ENCL: 00

SUBMITTED 12MARCH64

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757610005-9"

5 (3)

AUTHORS: Turova-Polyak, M. B., Rudenko, N. V. SOV/20-126-6-40/67TITLE: Alkylation of Benzene and Some Substituents by Isopropyl Alcohol  
Over an Aluminosilicate Catalyst at Atmospheric Pressure  
(Alkilirovaniye benzola i yego zameshchennykh izopropilovym  
spirtom nad alyumosilikatnym katalizatorom pri atmosfernom  
davlenii)PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 6, pp 1289 - 1292  
(USSR)

ABSTRACT: With the increasing importance of the alkyl products the subject mentioned in the title becomes more and more interesting. The catalysts mentioned in the title are widely used, the alkylation in the vapor phase in their presence, however, is still insufficiently investigated. The authors investigated the alkylation of the following: benzene, toluene, phenol, chlorobromo- and nitrobenzene by isopropyl alcohol. They obtained A) Cumene (yield 7%) (source for the production of phenol and acetone, Ref 1); B) zymol from which also styrene homologues (monomers for the production of artificial rubber) (Ref 2) may be produced; C) alkyl phenols (washing agent), phenol-formaldehyde-resins, initial substances for frostproof rubbers, Ref 3); D)

Card 1/4

Alkylation of Benzene and Some Substituents by  
Isopropyl Alcohol Over an Aluminosilicate Catalyst  
at Atmospheric Pressure

SOV/20-126-6-40/67

Halogen substituents of benzene (semiproducts for various syntheses, especially production of halogen-styrenes, Ref 4) etc. The yields of the latter were: isopropyl-bromine-benzene 69%, p-zymol 79%, isopropyl-phenol - 81% and isopropyl-chlorine-benzene 63% of the amount of alcohol used for the reaction. Nitrobenzene could not be alkylated. The activity of the catalyst remains sufficiently high for approximately 19 hours (Fig 1). Therefore the catalysts mentioned in the title are suited for alkylation because of the simple regeneration and their anti-corrosion properties. The results obtained by the authors concerning the character of the functional groups in the benzene cycle, the temperature at which the reaction is carried out, the velocity of the supply of the reacting components, and their molar ratio agree well with the theoretical principles. The presence of toluene in alkylation products besides p-zymol and m-zymol is in contradiction with the data on the mainly oriented action of the methyl group in an o- and p-position. The interrelation of the products of normal and abnormal orientation (Ref 6) depends on the alkylation conditions. The higher the

Card 2/4

Alkylation of Benzene and Some Substituents by  
Isopropyl Alcohol Over Alumino-silicate Catalyst  
at Atmospheric Pressure

SOV/20-126-6-40/6/

activity of the catalyst, the duration and the temperature of the reaction, the stronger is the tendency towards a formation of an anomalous *m*-derivative. The mechanism of the catalytic alkylation of the aromatic compounds by alcohols has not yet been definitely determined. Various considerations on a possible explanation of this mechanism are given (Refs 7,8,10,12,14,15). Equations (1), (2) and (3) describe the general mechanism of the reaction investigated. The authors carried out the alkylation in the presence of 100 ml globular alumo silicate for 1 - 3.5 hours at 200 - 350°. Figure 3 shows the optimum yields of cumene, *o*-methyl, isopropyl-chlorobenzene, isopropyl-bromobenzene, and isopropyl-phenol. Figure 4 shows the dependence of the yields on the velocity of the supply. In all cases the reduction of the alcohol concentration favored the increase of the yield of monocalkyl products. The structure of the alkylation products was confirmed by the production of derivatives in some cases also spectroscopically. There are 4 figures, 1 table, and 16 references, 10 of which are Soviet.

Card 3/4

Alkylation of Benzene and Some Substituents by  
Isopropyl Alcohol Over an Alumino-silicate Catalyst  
at Atmospheric Pressure

80V/20-126-6-40/67

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: March 4, 1959, by A. A. Balandin, Academician

SUBMITTED: March 4, 1959

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5.3400

77357  
SOV/79-30-1-18/78AUTHORS: Turova-Polyak, M. B., Rudenko, N. V., Ling Li-tang

TITLE: Catalytic Alkylation of Phenol With Isopropyl Alcohol

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, Nr 1, pp 94-98  
(USSR)ABSTRACT: The effect of the hydroxyl group on alkylation of phenol was studied. The optimum conditions of the reaction over alumino-silicate catalyst are: temperature,  $210-230^{\circ}$ , and space velocity of reagents,  $0.2 \text{ hr}^{-1}$ . Increasing the concentration of phenol up to 20 moles per 1 mole of alcohol decreases the yield of diisopropylphenols and increases the yield of mono-isopropylphenols up to 81%. Recycling the unreacted phenol raises the yield of monoisopropylphenol to 95%. Increasing the concentration of alcohol in the reaction mixture facilitates the formation of dialkylated products. The obtained monoisopropylphenol consists primarily of the para isomer with an admixture of the ortho isomer. The activity of catalyst decreases

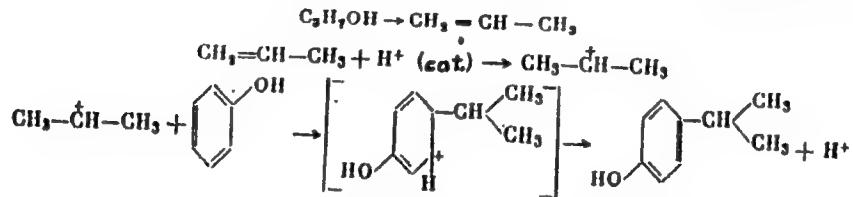
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Catalytic Alkylation of Phenol With  
Isopropyl Alcohol

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sharply after 19 hr of use, but it can be fully regenerated by treatment with a strong stream of dry air at 500-550°. The mechanism of the alkylation is explained by the formation of carbonium ions, which alkylate phenol.



The fractional distillation of the obtained product produced several fractions. One of them, bp 124-124.3°, mp 15.5°,  $n_{20}^D$  1.5282, was o-isopropylphenol. Reaction of o-isopropylphenol with monochloroacetic acid yielded o-isopropylphenoxyacetic acid, mp 131.5-132.5°. Reaction of o-isopropylphenol with potassium persulfate produces a blue solution, which is characteristic of

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o-isopropylphenol. The fraction 124.3-136.8°,  $n_D^{20}$  1.5271 yielded o-isopropylphenol,  $n_D^{20}$  1.5280, by freezing out, and a small amount of p-isopropylphenol, mp 60°. The fraction 136.8-137.3° yielded crystals of p-isopropylphenol, mp 60° (after recrystallization from alcohol) on cooling. Reaction of p-isopropylphenol with monochloroacetic acid yielded p-isopropylphenoxyacetic acid, mp 81.5-82.3°, and with benzoyl chloride, its benzoate, mp 71.2-72.2°. When an alkaline solution of p-isopropylphenol was treated with potassium persulfate, an orange solution was obtained, which is characteristic of p-isopropylphenol. From the fraction with bp above 231°, a 2,4-diisopropylphenol, bp 144.5-145.6° (20 mm),  $n_D^{20}$  1.5120, was obtained. There are 7 figures; 33 references, 9 Soviet, 18 U.S., 3 U.K., 2 Japanese, 1 German. The 5 most recent U.S. references are: Jordan, T., Vapor Pressure of Organic Compounds, N.Y. (1954); Sowa, F., Hinton, H., J. Am. Chem. Soc.,

Card 3/4

Catalytic Alkylation of Phenol With  
Isopropyl Alcohol

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54, 3694 (1932); Hansch, C., Robertson, D., J. Am. Chem. Soc., 72, 4810 (1950); Sowa, F. C., Hennion, H. F., Nieuwland, J., J. Am. Chem. Soc., 57, 709 (1935); Carpenter, M., Wood, T., Easter, W., J. Org. Ch., 615 (1951).

ASSOCIATION: Moscow State University (Moskovskiy gosudarstvenny universitet)

SUBMITTED: January 12, 1959

Card 4/4

SOSNINA, I.Ye.; TUROVA-POLYAK, M.B.

Action of aluminum chloride on bicyclo (2,2,1) heptane. Part 26.  
Zhur. ob. khim. 32 no.6:1941-1942 Je '62. (MIRA 15:6)

1. Moskovskiy gosudarstvenny universitet im. M.V. Lomonosova.  
(Aluminum chloride) (Norbornane)

BUROVA-POLYAK, M.B.; SOSHINA, I.Y.; BOLTUKHOVA, L.D.

Isomerization of polymethylene hydrocarbons under the effect of aluminum chloride. Part 27: Isomerization of  $\alpha$ -methyldecahydronaphthalene. (MIR 15:6)  
Zhur. ob. khim. 32 no. 6:1942-1945 Je '62.

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.  
(Naphthalene) (Aluminum chloride) (Isomerization)

TUROVA-POLYAK, M.B.; SOSNINA, I.Ye.; YUDKINA, T.P.

Isomerization of polymethylene hydrocarbons under the effect of  
aluminum chloride. Part 25: Isomerization of cyclopentylcycloheptane.  
Zhur. ob. khim. 31 no.10:3187-3190 O '61. (MIRA 14:10)

1. Moskovskiy gosudarstvennyy universitet.  
(Cycloheptane)

KOZINA, M.P.; SKURATOV, S.M.; SHTEKHER, S.M.; SOSNINA, I.Ye.; TUROVA-  
POLYAK, M.B. (Moscow)

Heats of combustion of some bicycloalkanes. Zhur.fiz.khim. 35  
no.10:2316-2321 0 '61. (MIRA 14:11)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.  
(Cycloalkanes) (Heat of combustion)

TUROVA-POLYAK, M.B.; BALENKOVA, Ye.S.; SOSNINA, I.Ye.; KHROMOV, S.I.;  
YUDKINA, T.P.

Isomerization of polymethylene hydrocarbons under the effect of  
aluminum chloride. Part 24: Isomerization of cyclononane and  
cyclodecane. Zhur. ob. khim. 31 no. 6: 1976-1981 Je '61.  
(MIRA 14:6)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.  
(Cyclodecane) (Cyclononane) (Isomerization)

TUROVA-POLYAK, M.B.; RUDENKO, N.V.

Catalytic alkylation of bromobenzene with propyl alcohols. Zhur. ob. khim. 31 no.6:1982-1985 Je '61. (MIRA 14:6)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.  
(Benzene); (Propyl alcohol)

28290

S/076/61/035/010/009/015  
B106/B10111.1210  
11.0132AUTHORS: Kozina, M. P., Skuratov, S. M., Shtekher, S. M., Soshina, I.  
Ye., and Turova-Polyak, M. B.

TITLE: Combustion heats of some bicyclanes

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 10, 1961, 2316-2321

TEXT: The authors determined the combustion heats of some bicyclic hydrocarbons with rings of 5, 6, and 7 members at 25°C. Only one series of publications exist on this subject which did not indicate either the measuring methods applied or the dependability of the results obtained (Ref. 3: (a) J. A. Goodman a. P. H. Wise, J. Amer. Chem. Soc., 73, 850, 1951; (b) K. T. Serijan a. P. H. Wise, J. Amer. Chem. Soc., 73, 4766, 5191; 74, 365, 1952; (c), (d) see below). The following hydrocarbons were examined: dicyclopentyl, dicycloheptyl, trans- $\beta$ -methyl decalin. The hydrocarbons were purified chromatographically on silica gel of the type KCM(KSM), then subjected to fractional vacuum distillation and finally subjected to chromatography on silica gel for another 2 or 3 times. Their

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Combustion heats of some ...

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B106/B101

purity was determined by a cryoscopic method developed by A. G. Anikin, Ya. I. Gerasimov, and G. M. Dugacheva (Ref. 8: Dokl. AN SSSR, 110, 576, 1950). The calorimetric bomb used (Fig. 2) was designed by the thermo-khimicheskaya laboratoriya MGU (Thermochemical Laboratory of Moscow State University), and had the following advantages as compared to other types of bombs: lower thermal inertness, simple and dependable valve construction for introducing and removing the gases, and insulated ignition wires resistant to the flame of the burning substance. The bomb was filled with oxygen free from combustion impurities to a pressure of 30 atm. Temperature of the calorimeter was measured by a specially designed thermometer allowing readings of an accuracy of 0.0002°C. Correction for the heat exchange was calculated according to the formula by Regnault-Pfaundler-Usov, and did not exceed 1% of the temperature ascent. The calorific value of the calorimeter system was determined by burning benzoic acid produced by the Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D. I. Mendeleyeva (All-Union Scientific Research Institute of Metrology imeni D. I. Mendeleyev). The weight of the burned substance was found by determining the quantity of carbon dioxide produced by combustion. Carbon dioxide was absorbed by ascarite and its quantity determined by weighing *uH*

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S/076/E1/025/C10/C03/C15  
B106/B101

Combustion heats of some ...

the absorption vessel. Accuracy of this method of  $\text{CO}_2$  determination was  $\pm 0.02\%$ . Table 4 shows the results of determinations. By comparing the data obtained with the known values for the combustion heat of the corresponding monocyclanes (Ref. 13: Sj. Kaarsemaker a. J. Coops, Rec. trav. chim., 71, 261, 1952) and of trans-decalin (Ref. 14: G. F. Davies a. E. C. Gilbert, J. Amer. Chem. Soc., 63, 1585, 1941) the following relations could be established: combustion heat of any bicyclane consisting of rings with more than 4 carbon atoms:

$\Delta H_{\text{comb}}^{25} = \Delta H' + \Delta H'' + 60.1 \text{ kcal/mole}$  ( $\Delta H'$ ,  $\Delta H''$  = combustion heats of monocyclanes constituting the corresponding bicyclane; 60.1 kcal/mole = reaction enthalpy for forming a molecule of bicyclane and a molecule of hydrogen from 2 molecules of the corresponding monocyclanes); combustion heats of trans- $\beta$ -alkyl decalins (for nonramified alkyl radicals):

$\Delta H_{\text{comb}}^{25} = 1500.3 + 154.2 + (n-1) \cdot 156.2 \text{ kcal/mole}$  (1500.3 = combustion heat of trans-decalin; 154.2 = increment of the  $\text{CH}_2$  group directly bound to the ring; 156.2 = increment for a  $\text{CH}_2$  group in the nonramified alkyl radical;

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uH

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B106/B101

Combustion heats of some ...

$n$  = number of carbon atoms in the alkyl radical); combustion heats of bicyclanes separated by a methylene group, i.e., compounds of the type  $X' - \text{CH}_2 - Y'$  ( $X'$ ,  $Y'$  = radicals of the corresponding monocyclanes):

$$-\Delta H_{\text{comb}}^{25} = -(\Delta H_X + \Delta H_Y) - 60.1 + 155.3 \text{ kcal/mole} (\Delta H_X, \Delta H_Y = \text{combustion heats of the corresponding monocyclanes}; 155.3 = \text{increment of the } \text{CH}_2 \text{ group bound to two rings); isomerization enthalpies for the liquid state at } 25^\circ\text{C: dicyclopentyl to trans-decalin } (\Delta H_{\text{is}}^{\text{I}} = -13.2 \text{ kcal/mole}); \text{ cyclopentyl cyclohexane to trans-}\beta\text{-methyl decalin } (\Delta H_{\text{is}}^{\text{II}} = 8.2 \text{ kcal/mole); dicyclopentyl methane to trans-}\beta\text{-methyl decalin } (\Delta H_{\text{is}}^{\text{III}} = -14.2 \text{ kcal/mole).}$$

There are 2 figures, 4 tables, and 15 references: 6 Soviet and 9 non-Soviet-bloc. The three most recent references to English-language publications read as follows. J. B. Greenshields *a. F. D. Rossini, J. Res. Nat. Bur. Standards*, 62, 271, 1958; Ref. 3: (c) R. M. Caves, R. L. McLanahan *a. P. H. Wise, J. Amer. Chem. Soc.*, 76, 522, 1954; (d) J. H. Lamneck, jr., *a. P. H. Wise, J. Amer. Soc.*, 76, 5108, 1954.

Card 4/6

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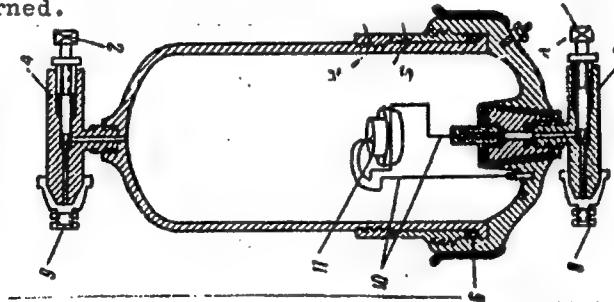
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Combustion heats of some ...

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: February 25, 1960

Fig. 2. Cross section of the calorimetric bomb. Legend: (1), (2) conical valves for introducing and removing the gas; (3), (4) stuffing boxes; (5) sleeve nut for sealing the bomb; (6) rubber packing ring; (7) threaded ring to keep packing tight, when pressure drops to 1 atm in the bomb; (8), (9) connecting terminals; (10) ignition wires; (11) cup holding the substance to be burned.



Card 5/6

TUROVER, Ya.M.; STRUTINSKIY, N.I.

Use of Chebyshev's polynomials to calculate gradual transitions.  
Radiotekh. i elektron. 1 no.2:143-161 F '56. (MIRA 9:7)  
(Polynomials) (Electric lines)



TUROYER, Ya.M.

USSR / Acoustics, Sound Oscillations and Waves.

J-2

Abs Jour : Ref Zhur - Fizika No 3, 1957, No 7439

Author : Turoyer, Ya.M.

Title : On the Laws of Periodic Structures, Established by N.P. Kasterin in 1898 -- 1904.

Orig Pub : Tr. H - i. in-ta M-va radiotekhn. prom-sti, 1955, vyp. 4, 63-64

Abstract : Brief description of the work of N.P. Kasterin "On the Propagation of Waves in an Inhomogeneous Medium" (Uch. Zapiski Imp. Mosk, un-ta, 1904, No 20).

Card : 1/1

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"УРОВЕНЬ"

Ул. М.  
Совместное исследование с целью распространения ре-  
зультатовА. В. Прокофьев,  
В. Ф. ГубайдуллинИзотропные векторы теории радиотехники при про-  
изводстве усилительных УВДА. В. Прокофьев,  
Г. Н. Соболевский,  
Н. Н. ДенисовЭлектромагнитные исследования радиотехники при про-  
изводстве при дальнем трансформаторе распространения УВД

(с 12 до 16 часов)

В. Ф. Губайдуллин

Об изотропных векторах обнаружения определен-  
ного сигнала за фоне шума

Н. Н. Денисов

Поверхность, вычисляемая в изотропии опреде-  
ленного излучения

0 часов

(с 18 до 22 часов)

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С. Н. Дедкин (Челябинск)

Резонансные преобразователи в изотропии их при-  
менение

А. Г. Дарфус

Расчет частотных характеристик изотропных гло-  
бальных излучателей

Д. Е. Волков

К расчету передатчиков приемников при частотной ме-  
дийной

16 часов

(с 10 до 16 часов)

А. Я. Масленко

Атомно-лучевые размножители широкого спектра

В. Е. Штейншнейдер,

Г. С. Масленко

Диагностические и измерительные изотропные излуча-  
тели

В. Н. Туров

К вопросу об изотропных излучателях при изотропном  
распространении излучения изотропных излучателей

44

Report submitted for the Centennial Meeting of the Scientific-Technological Society of  
Radio Engineering and Electrical Communications in A. S. Popov (УЧЕЛС), Moscow,  
8-12 June, 1959

TUROVER Ya. M.  
TUROVER, Ya. M.

Method of calculating local reflection coefficients at the optimum  
stages of transitions. Radiotekh. i elektron. 2 no.4:395-400 Ap '57.  
(Polynomials) (Radio, Shortwave) (MIRA 10:9)

SOV-109-3-6-20/27

AUTHOR: Turover, Ya. M.

TITLE: Approximate Calculation of the Mutual Inductance of the  
Coupling Loop in the Cylindrical Cavity of a Multi-Resonator  
System (Priblizhennyj raschet vzaimoinduktsii petli svyazi  
i tsilindricheskoy polosti mnogorezonatornoy sistemy)PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol 3, Nr 6,  
pp 839-843 (USSR)ABSTRACT: The problem is solved under the following assumptions:  
1) the coupling loop is comparatively small, 2) the current  
distribution in the loop is uniform, 3) the field in the  
cylindrical cavity in the vicinity of the loop is uniform,  
and (4) the loop does not distort the field in the cavity.  
By employing the ideas of Hansen (Ref.2), the magnetic field  
at a point on the axis of the cavity at a distance  $x$  from  
the centre (see Fig.1a) is given by Eq.(1). From this it  
follows that the mutual inductance for the case of Fig.1b  
is given by Eq.(2) while for the system of Fig.1B it is  
expressed by Eq.(3) where  $\ell = 2\pi r$ . The inductance can  
also be derived from the integral represented by Eq.(4)  
(Ref.5). The approximate solution of the integral gives  
the mutual inductances in the form of Eqs.(5), (6) and (7).  
Eq.(7) was derived for the case when the loop is situated

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SOV-109-3-6-20/27

Approximate Calculation of the Mutual Inductance of the Coupling Loop in the Cylindrical Cavity of a Multi-Resonator System

in a magnetic field twice as strong as that of the magnetic flux of a single cavity. The mutual inductance, or the coupling coefficient, of the loop, was measured indirectly by means of the equipment shown schematically in Fig.2. The results are shown in Fig.5 where Curve 1 represents the experimental results, Curve 2 corresponds to the values of the mutual inductance as calculated from Eq.(2) and Curve 3 relates to the mutual inductance as evaluated from Eq.(7). The inductance  $L$  in Fig.5 was calculated by means of Eq.(9). The author expresses thanks to B. S. Grishin and

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SOV-109-3-6-20/27

Approximate Calculation of the Mutual Inductance of the Coupling Loop in the Cylindrical Cavity of a Multi-Resonator System

B. S. Marchenko, for their help in carrying out the measurements. The paper contains 5 figures and 5 references, 3 of which are English and 2 Soviet.

SUBMITTED: March 22, 1956 and after revision,  
August 15, 1957.

1. Cavity resonators - Performance Applications
2. Coupling circuits - Applications
3. Mathematics - Applications

Card 3/3

TUROVEROV, K.K.

Investigating the strained and deformed state of an elastic  
laminated half space. Nauch.trudy LTA no.94:87-101 '62.  
(MIRA 16:1)  
(Strains and stresses) (Foundations)

TUROVEROV, K.K.

Calculating a three-layer foundation with a thin intermediate layer.  
(MIRA 17:3)  
Nauch. trudy LTA no.96:69-81 '61.

VISHNEVSKIJ, A.S., prof., rad. Prinimaj. uchastiye: PETELIN, S.V.  
POZDEYEV, V.G.; RUBINSKIJ, S.I.; TUROVEROV, K.K.; MANIKOV, M.Ye.,  
red.

[Basic principles and methodologies of climatherapy! Os-  
novnye printsipy i metodika klimatoterapii. 1965. 412 p.  
(MIRA 18:12)

• TUROV RUV, KK.

21

PHASE I BOOK EXPLOITATION SOV/5729

Leningrad. Glavnaya geofizicheskaya observatoriya.

Voprosy prikladnoy klimatologii; sbornik statey (Problems in Applied Climatology; Collection of Articles) Leningrad, Gidrometeoizdat, 1960. 159 p. Errata slip inserted. 1,050 copies printed.

Sponsoring Agency: Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR. Glavnaya geofizicheskaya observatoriya im. A. I. Voevokova.

Ed. (Title page): F. F. Davitay, Doctor of Agricultural Sciences;  
Ed.: L. P. Zhdanova; Tech. Ed.: N. V. Volkov.

PURPOSE: This publication is intended for applied climatologists and planners in climate-dependent industries.

COVERAGE: This collection of 18 articles contains reports originally presented at the Conference on Applied Climatology in Leningrad in October 1958. The purpose of the conference was to summarize the results of research done in the field of applied

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## Problems in Applied Climatology (Cont.)

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climatology and to point the way for further investigations. Individual articles deal with general problems in applied climatology and special problems in engineering and industrial climatology, medical and health resort climatology, climatic energy resources, and marine climatology. No personalities are mentioned. References follow individual articles.

## TABLE OF CONTENTS:

Foreword

3

## GENERAL PROBLEMS

Drozdov, O. A. [Glavnaya geofizicheskaya observatoriya im. A. I. Voegevskogo -- Main Geophysical Observatory imeni A. I. Voegevskogo]. Spatial and Temporal Climatic Characteristics Required to Serve the Needs of the National Economy 5

Sapezhnikova, S. A. [Nauchno-issledovatel'skiy institut aeroklimatologii -- Scientific Research Institute of Aeroclimatology] On Card 2/7

3

Problems in Applied Climatology (Cont.)

SOV/5729

PROBLEMS IN MEDICAL AND HEALTH RESORT CLIMATOLOGY

Chirakadze, G. I. [Tbilisskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut -- Tbilisi Hydrometeorological Scientific Research Institute]. Climatic Principles in Planning the Construction and Operation of a Health Resort 86

Chubukov, L. A. [Tsentral'nyy institut kurortologii i Institut geografii AN SSSR -- Central Institute of Natural Medical Factors and the Institute of Geography AS USSR]. Methods of the Comparative Analysis of the Climate of Health Resorts and Therapeutic Localities and Their Classification 90

Churoverov, K. K. [Gosudarstvennyy bal'neologicheskiy institut na Kavkazskikh Mineral'nykh Vodakh -- State Balneological Institute at Kavkazskiy Mineral'nyye Vody (Caucasian Mineral Waters)]. Effect of Meteorological Conditions on the Regime of Mineral Springs of the Caucasian Mineral Waters 98

Card 5/7

TUROVEROV N. K.  
TRUOVEROV N. K.

2017/5/9-2-23/25

1959. MR. 23, PP. 69 - 70 (USSR)  
CONFERENCE ON APPLIED CLIMATOLOGY (Goreobraniye po prikladnoy klimatologii)

## Matematologiya i gidrologiya: 22-23 i 31-32 i 1958 - Conference on Applied Mathematics 22 and 31 and 32 December 1958

Between October 11 and 15, at the Glazyrino Geophysical Observatory in Glazyrino, the Main Geophysical Observatory (MGO) of the USSR, a conference was convened upon the subject of "Hydroseismological Observations in the Glazyrino Area." The conference was organized by the Glazyrino Seismological Observatory, headed by A. I. Vaynshteyn, and the Glazyrino Hydroseismological Observatory, headed by V. P. Pastushik. The conference was attended by 100 scientists and specialists from 15 institutions of various authorities. In all, participation was arranged for 254 persons. 22 papers were read, V. P. Pastushik spoke on the experience of the GGO in the field of hydroseismology, O. A. Dresner on space and time characteristics of seismic waves, and V. N. Sosulin on the use of the calculations of the seismic-wave field in the work of the hydroseismological observatory. V. N. Sosulin is the author of the article "Hydroseismological Observations in the Glazyrino Area," published in the journal "Geofizika" (Geophysics) in 1957. The conference was organized by the Glazyrino Seismological Observatory, headed by A. I. Vaynshteyn, and the Glazyrino Hydroseismological Observatory, headed by V. P. Pastushik. The conference was attended by 100 scientists and specialists from 15 institutions of various authorities. In all, participation was arranged for 254 persons. 22 papers were read, V. P. Pastushik spoke on the experience of the GGO in the field of hydroseismology, O. A. Dresner on space and time characteristics of seismic waves, and V. N. Sosulin on the use of the calculations of the seismic-wave field in the work of the hydroseismological observatory. V. N. Sosulin is the author of the article "Hydroseismological Observations in the Glazyrino Area," published in the journal "Geofizika" (Geophysics) in 1957.

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AUTHORS

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EXPLANATION

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APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001757610005-9"

TUROVEROVA, N.I., kand. med. nauk

Determination of the duration of prenatal leave. Akush. i gin.  
(MIRA 17:6)  
no.1-98-101 '63.

1. Iz kafedry organizatsii zdravookhraneniya (zav. - dotsent  
N.G. Sinyavskaya) i kafedry akusherstva i ginekologii (zav.-  
prof. A.I. Petchenko) Leningradskogo pediatriceskogo meditsinskogo  
instituta.

TUROVEROVA, N.I., kand. med. nauk; TREYVUSH, A.I.

Diagnosis of gonorrhea in gynecological consultation centers.  
Akush. i gin. 38 no.5:116-117 S-0 '62.

(MIRA 17:11)

1. Iz akushersko-ginekologicheskoy kliniki (zav. - prof. A.I.  
Petchenko) Leningradskogo pediatriceskogo meditsinskogo instituta.

TJROVEROVA, N.I.

Puerperal Convulsions

Prevention of eclampsia in gynecological and obstetric consultation centers.

Vop. pediat. i okhr. mat. i det. 20, no. 2, 1952.

August 1952 1952 Unclassified.

9. Monthly List of Russian Accessions, Library of Congress.

TUROVERCVA, N.I.

Gynecology

Prevention of eclampsia in gynecological and obstetric consultation center.

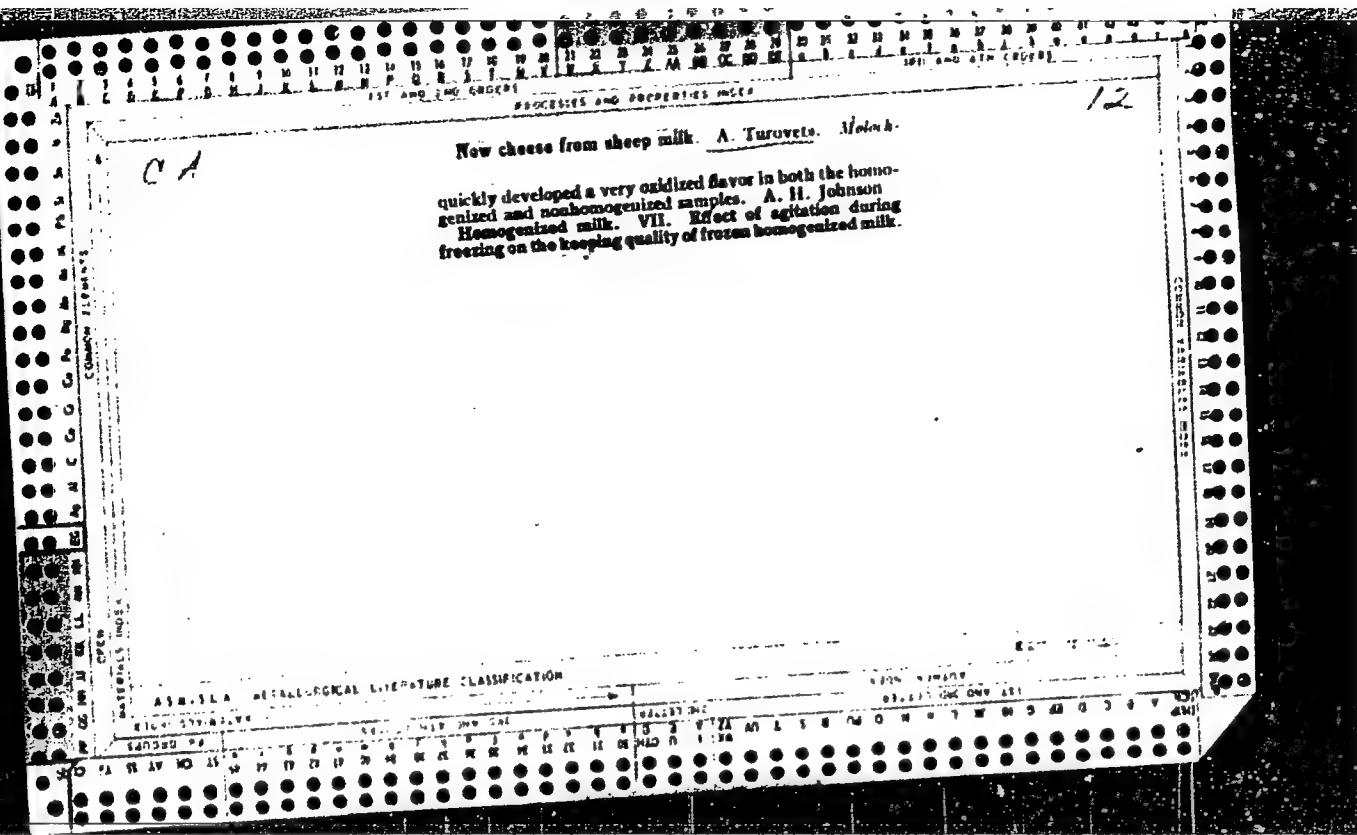
Vop. pediat. i okhr. mat. i det. 20, no. 2, 1952.

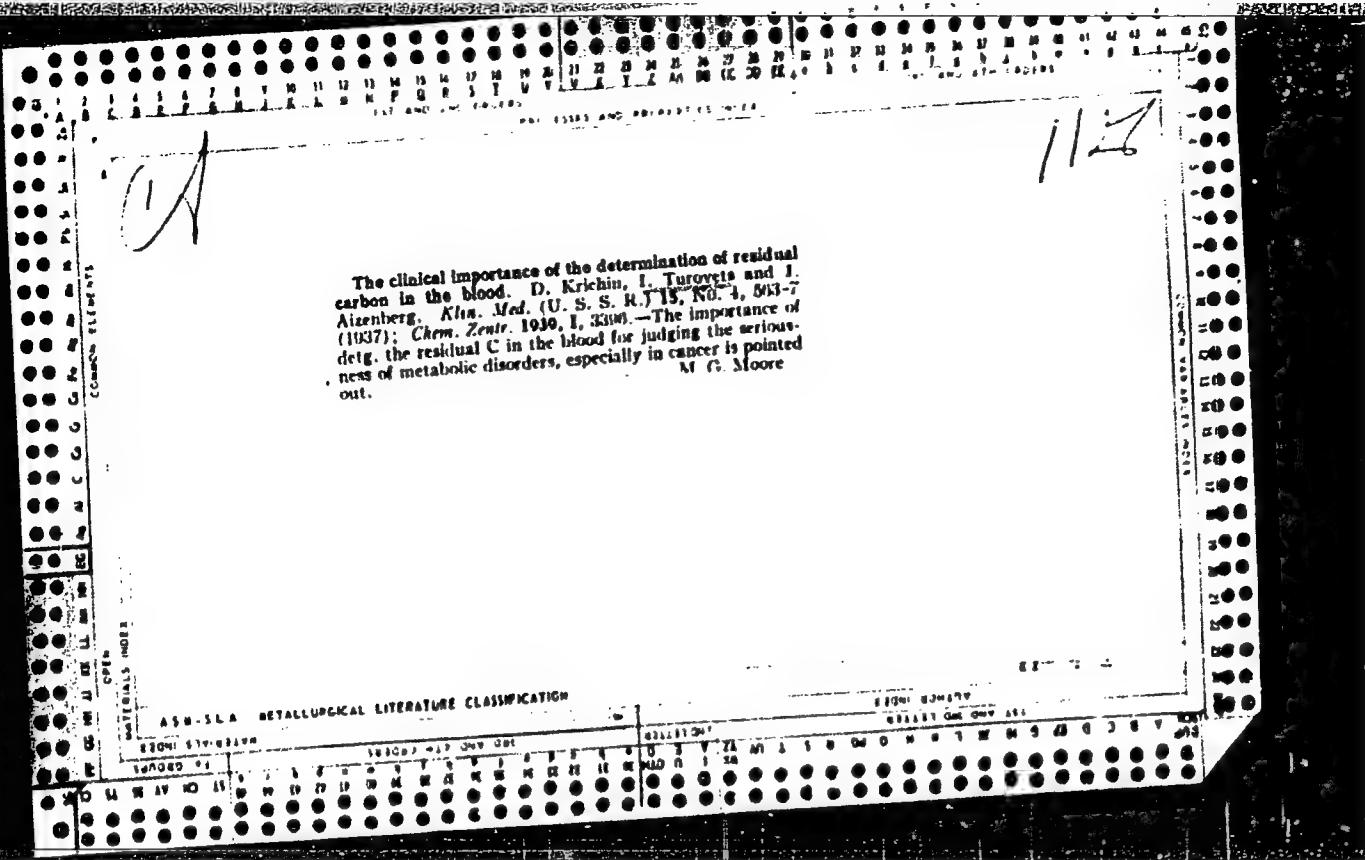
9. Monthly List of Russian Accessions, Library of Congress, August 1952, 1952, Unclassified.

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SO: "etopis" Zhurnal'nykh Statey, Vol. 45, Maskva, 1949





BRATUS', V.D., dots., otv. red.; AMOSOV, N.M., prof., red.;  
KOLOMIYCHENKO, M.I., prof., red.; FEDOROVSKIY, A.A.,  
prof., red.; TUROVETS, L.G., prof., red.; KLOCHKOV, I.Ye.,  
dots., red.; LEVCHUK, G.A., dots., red.; TRESHCHINSKIY, A.I.,  
dots., red.; KOCHKOV, I.Ye., red.; CHUCHUPAK, V.D., tekhn.red.

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kand.ned.nauk

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133-134 June '59. (MIRA 12:6)  
(ZAMOSHCHIN, MANUIL BORISOVICH, 1889-)

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TUROVETS, I.G., prof. (Kiyev, ul. Engel'sa, d.26, kv.8)

User of anticoagulants in the compound treatment of thrombophlebitis  
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prof. I.G.Turovets) Kiyevskogo meditsinskogo instituta.  
(ANTICOAGULANTS (MEDICINE))  
(VEINS--DISEASES)

TUROVETS, I.G., prof., ULANOVSKIY, I.N., kand.med.nauk

Is ligation of the hepatic artery permissible in treating portal hypertension. Vrach.delo no.8:815-818 Ag '58 (MIRA 11:8)

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(zav. prof. I.G. Turovets) Kyevskogo meditsinskogo instituta.  
(HEPATIC ARTERY--LIGATION)  
(HYPERTENSION)

TUROVETS, I.G., prof.

Thrombophlebitis and phlebothrombosis of the lower extremities  
not responding to anticoagulant treatment. Vrach.delo no.2:117-121  
F '58. (MIRA 11:3)

1. Khirurgicheskaya klinika (zav.-prof. I.G.Turovets) sanitarno-  
gigiyenicheskogo fakul'teta Kiyevskogo meditsinskogo instituta.  
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Some problems of thrombosis and embolism in surgery. Nov. khir.  
arkh. no.9:34-41 S '61. (MI-14:10)  
(SURGERY--COMPLICATIONS AND SEQUELAE)

TUROVETS, I.G., prof. (Kiyev, ul.Chkalova,d.37a,kv.12); TOLSTOVA, G.M.;  
BOGOMOLETS, I.S., dotsent

Anesthesia methods in operations for diseases of the biliary tract.  
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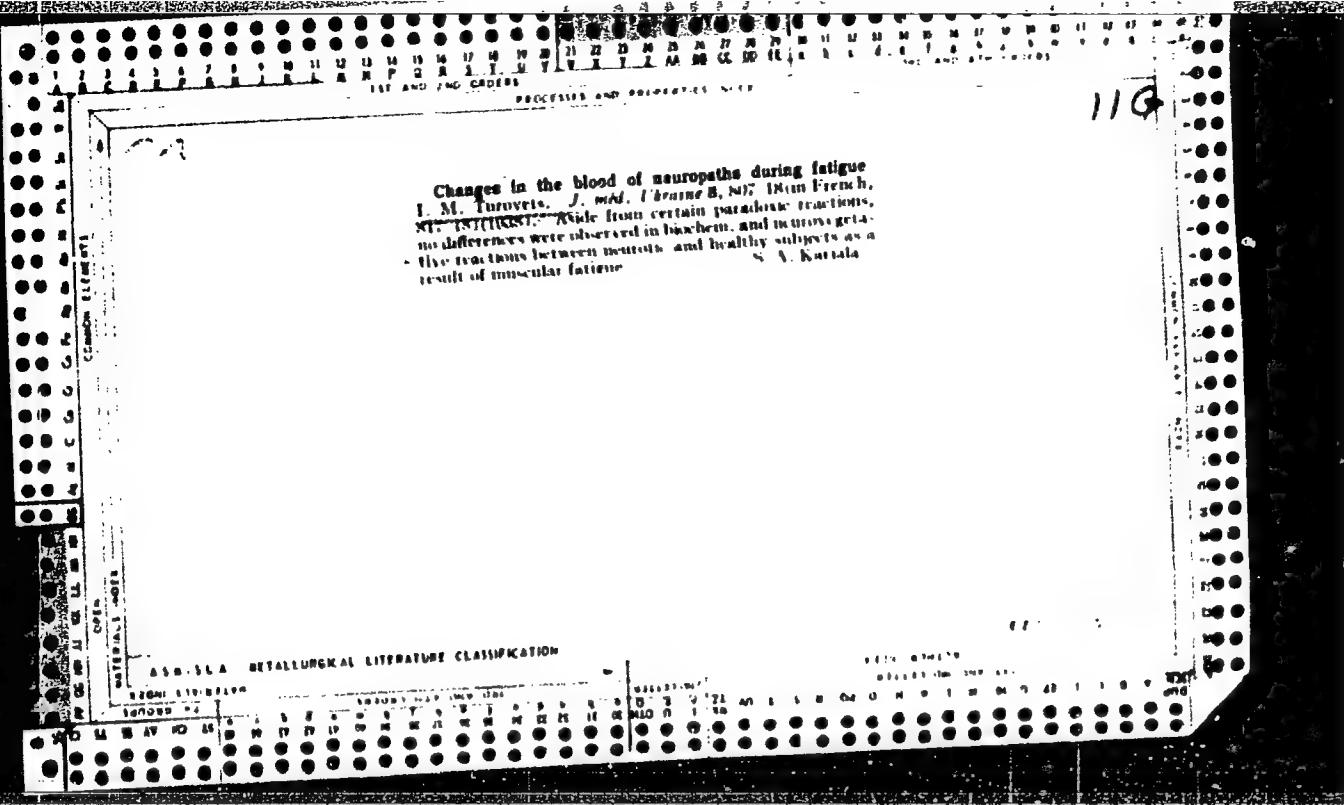
1. Kafedra khirurgii (zav. - prof. I.G.Turovets) sanitarno-gigiyenicheskogo fakul'teta Kiyevskogo meditsinskogo instituta.  
(BILIARY TRACT--SURGERY) (ANESTHESIA)

Variations in the acid-base equilibrium in hepatic disease after fatigue. J. M. Turovets and R. M. Kharitonova. *J. med. Ultrafiz.* 5, 207-211 (in French, 614) (1938).—Resting patients suffering from hepatic disease of not too severe a character showed no change in the acid-base equil. although the blood contained a high concn. of partially oxidized metabolic products (ketonic bodies, lactic acid and residual N). After fatigue the reserves of alkali fell, and a diminution of  $H_2CO_3$  in the alveolar air, of  $NH_3$  in the urine and of acidity of the urine was observed. S. A. Karjala

S. A. Karjala

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PROCESSES AND PROPERTIES DATA

Hemodynamic variations in hepatic disease after fatigue. I. M. Languet and J. G. Tonkunogu. J. M. J. Urol. 81, 515-24 (in French, 324) (1949). Some hemodynamic variations are noted even in the state of rest in hepatic disease, depending upon the extent of hepatic lesions. After fatiguing exercise the pulse is accelerated, there is a great difference between the O content of arterial and venous blood, and an increase in the index of consumption of O<sub>2</sub>, a slight increase in gaseous metabolism and a more rapid circulation are observed. There is a great difference between the H<sub>2</sub>CO<sub>3</sub> of arterial and venous blood. The reserve alkali falls and the amt. of lactic acid in the blood rises. S. A. Karials

ASM-SEA METALLURGICAL LITERATURE CLASSIFICATION

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62

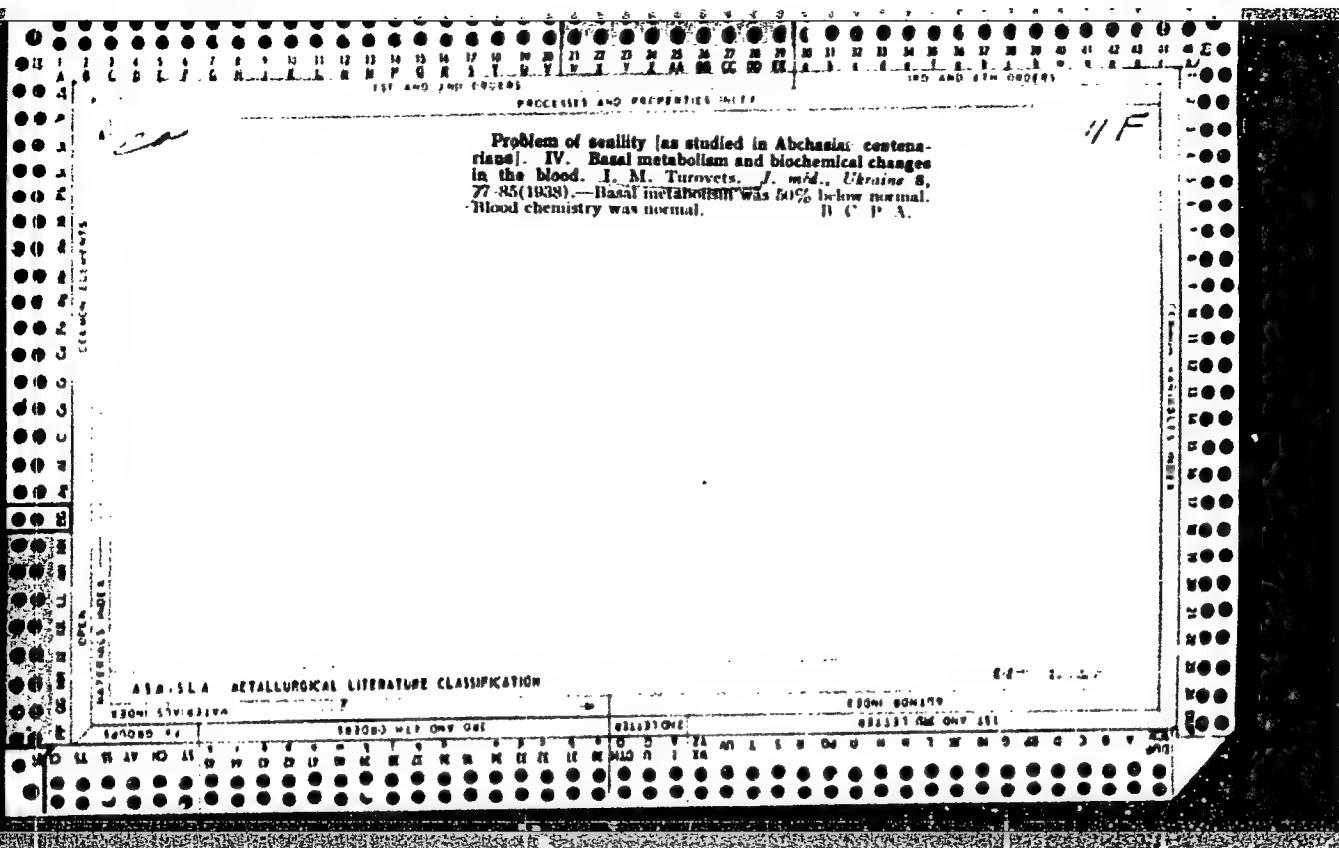
**THE CRITICAL VALUE OF THE VAPOR PRESSURE OF CARBON DIOXIDE IN ALVEOLAR AIR. I. EXPERIMENTAL METHODS.** I. M. TURGEON, *J. med. Chirurg.* 7, 311-25 (1936 French 321-51 (1937). The vapor pressure of  $\text{CO}_2$  in arterial alveolar air is 30.0-37.0 mm. Hg (4.5-5.5%  $\text{CO}_2$ ) and in venous alveolar air 39.2-46.3 mm. Hg (5.0-6.5%). The pressure of  $\text{CO}_2$  varies with the acid-base equil. A diminution of alk. reserve (acidosis) results in a fall in  $\text{CO}_2$  pressure. Parallel changes in arterial and venous alveolar air are generally found. II. CLINICAL SIGNIFICANCE. *Ibid.* 519-80 (French 389). Diabetic acidosis results in a fall in the vapor pressure of  $\text{CO}_2$  (D) in alveolar air. Chronic kidney diseases are accompanied by a greater

decrease in I in both arterial and venous alveolar air than is found in acidosis. Nephritis causes no change in I. Cardiovascular disturbances show low values of I in arterial and higher values in venous alveolar air. Pulmonary disturbances show high values of I only when breathing has been considerably limited. S. A. Karjalä

TABLE 11-3. METALLURGICAL LITERATURE CLASSIFICATION

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Hemodynamics in persons of advanced age. II. S. M. Turcova, *J. Physiol.* 9, 477-481 (1939 French, (1940); cf. *C. A.* 33, 2500). A study of 21 subjects aged 60-130 yrs. indicated that basal metabolism and the minute and systolic vols. of the heart are lowered. There is a greater difference between the  $O_2$  content of arterial and venous blood and the coeff. of utilization of  $O_2$  is increased. A slight venous hypotension, sometimes accompanied by arterial hypoxemia, generally occurs. The blood content and blood circulation decrease. S. A. Karjala

S. A. Karjala

Gas exchange and blood variations in old age. I. M. Turyngia. *J. med. Ukrainsk* 8, 819-826 (in French, 1957) (1958).—The blood of healthy subjects 60-88 years of age showed a dry residue of 20.2% (av.) and an albumin/globulin ratio of 0.9-2. The values for Na, Cl, lactic acid and reserve alkali were normal, while blood sugar and N compds. were at the upper limit of normal and K and Ca were present to 24.6 and 12.1 mg. %, resp. The K/Ca ratio was without noticeable change. Inorg. P and Mg were present to 3.0 and 2.7 mg. %, resp. The urea/N residual N ratio was below normal. Cholesterol was present generally at the upper limit of normal (190 mg. %). S. A. Karjalai

S. A. Karjala

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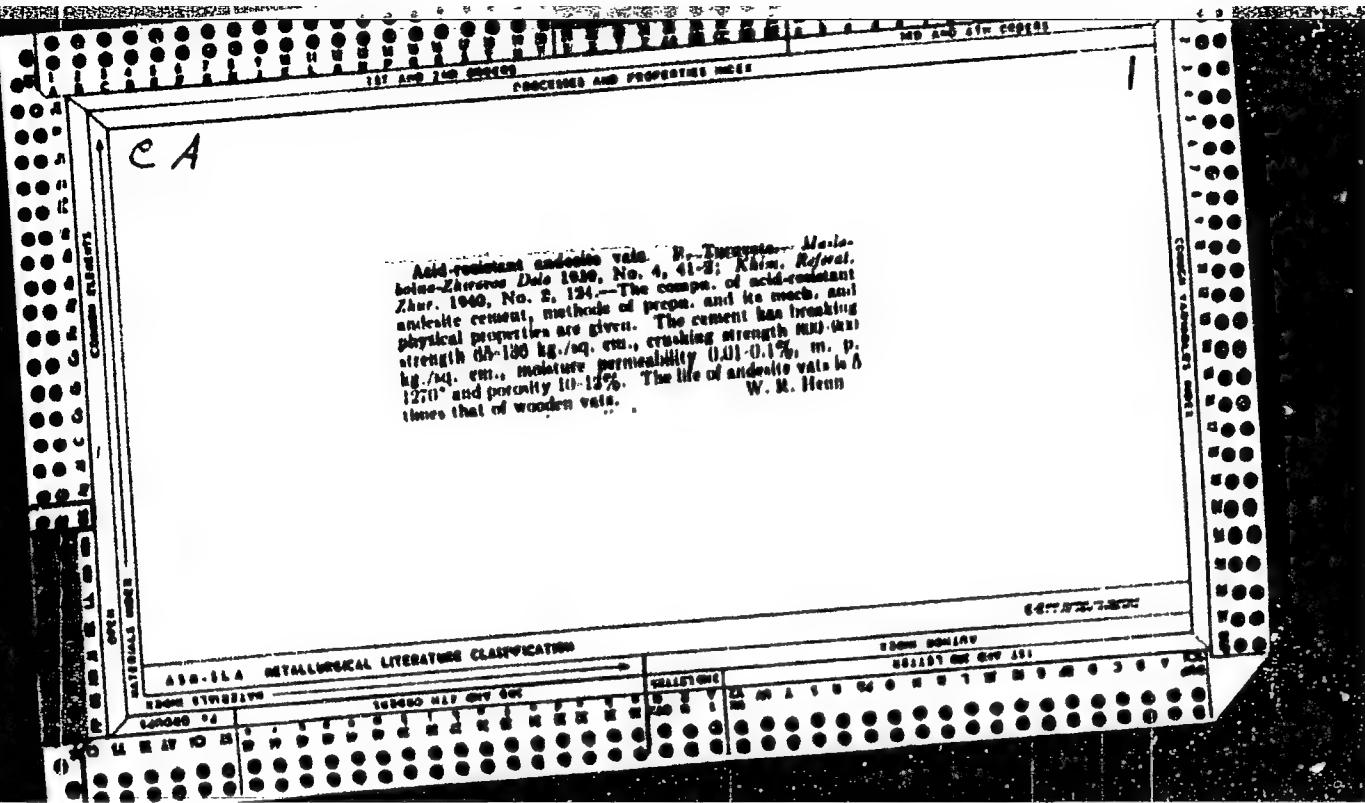
CIA-RDP86-00513R001757610005-9"

Interchange of substances in aged subjects. J. M. Turoveit and L. I. Pravdina. *Trans. Conf. Sanitary, Kiev 1938*, 327-34; cf. *C. A.*, 33, 2509; 34, 13009.—Basal metabolism and pulmonary ventilation are decreased in individuals aged from 80 to 140. Dry residue of blood is normal, total amt. of serum protein is decreased; globulins are raised; cholesterol and cholesterol esters are diminished. Ca and Mg are raised, P lowered; the coeff. K/Ca decreases. Acid-base balance is unchanged. Vol. of urine is diminished, excretion of urea delayed, but no renal lesions were found. B. C. P. A.

## APPENDIX METALLURGICAL LITERATURE CLASSIFICATION

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CIA-RDP86-00513R001757610005-9"



TUROVETSKIY, A.; FEL'DMAN, A.

Application of labor legislation in building houses by the method  
of public construction. Sots.trud 4 no.5:125-127 My '59.  
(MIRA 12:8)

(Labor and laboring classes--Dwellings)

TUROVETS'KI, F.

Vodnyi transport Ukrayini ta shliakhi iogo sotsialistichnoi rekonstruktsii. [Water transportation in Ukraine and the ways of its socialist reconstruction]. Kharkhiv, Gospodarstvo Ukrayini, 1932. 90 p. maps. dia. ra.

Gives a chart of freight turnover in the ports of Ukraine. A map of the canal system of the rivers Dniepr and Bug.

DLC: HE675.1UsT8

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

